

REMARKS

Claims 1 - 10 are in the case. All Claims stand rejected.

REJECTION UNDER 35 U.S.C. 102

Claims 1 - 8 have been rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent Number 4,918,255, Chou, et al. ("Chou").

EXAMINER'S POSITION

The Examiner takes the position that Chou discloses a process of alkylating isoparaffin with olefin in the presence of a catalyst containing acidic solid containing Y zeolite and group VIII metal and an amount of water. The Examiner points to the Abstract, col. 2, lines 10 - 14; col. 5, lines 38 - 46; col. 6, line 11, and col. 6, lines 25 - 33.

APPLICANT'S POSITION

Applicants respectfully disagree with the Examiner, as it is Applicants' position that Chou does not anticipate the presently claimed invention. In order to anticipate, a given reference must disclose, either directly or indirectly, each and every element of the claimed invention.

Applicants first note that the Examiner has presented applicant with a 102(b) rejection that combines the teachings of two references. Thus, Applicants will address this rejection both as a 35 USC 102(b) rejection and as a 35 USC 103(a) rejection.

It has been frequently established by Federal Circuit decisions that anticipation is established only if all of the elements of an invention as stated in a patent claim are identically set forth in a single prior art reference, Transclean Corporation v. Bridgewood Services, Inc., 290 F.3d 1364, 62 U.S.P.Q.2d 1865 (Fed. Cir. 2002); Gechter v. Davidson, 116 F.3d 1454, 1457, 43 U.S.P.Q.2d 1030, 1032 (Fed. Cir. 1997); Mehl/Biophile International Corporation v. Milgraum, 192 F.3d 1362, 1365, 522 U.S.P.Q.2d 1303, 1306 (Fed. Cir. 1999).

The present invention relates to a process for alkylating a hydrocarbon feed. The process comprises contacting the hydrocarbon feed to be alkylated with an alkylation agent in the presence of a catalyst. The catalyst comprises a solid acid, a hydrogenation metal, and 1.5 - 6wt.% water, measured on the loss of ignition at 600°C, to obtain an alkylate.

Chou does not disclose that the catalyst used therein includes a hydrogenation metal. Instead, Chou teaches that the catalyst useful in his invention is a composite catalyst comprising a Lewis Acid and a large pore zeolite and/or a non zeolitic inorganic oxide, see Abstract of Chou. Chou also states at col. 5, lines 13 - 16 that the catalyst used in his process is a Lewis Acid and a large pore zeolite and/or a non zeolitic inorganic oxide in the presence of a controlled amount of water.

Chou continues at col. 5, lines 38 - 46, that the catalyst used in its process is a "novel isoparaffin alkylation catalyst. The catalyst system includes a Lewis acid, such as BF_3 , in combination with a large pore zeolite, such as Zeolite Bets, and/or a non-zeolitic solid inorganic oxide, such as SiO_2 or Al_2O_3 , to promote paraffin/olefin alkylation, all in the presence of a closely controlled amount of water."

Chou does not include teachings of each and every element of the presently claimed invention. In particular, Chou does not provide teaching that the catalyst used in his process includes a hydrogenation metal.

With regards to the hydrogenation metal, the catalyst of Chou is referred to throughout the Application, as noted above. There is no teaching in Chou that the catalyst contains a hydrogenation metal. Instead, the Examiner relies on the disclosure in Chou at col. 2, lines 10 - 14 to support the inclusion of a hydrogenation metal in the Chou catalyst. Applicants respectfully point out that the section cited refers to a prior art patent included in the Background of the Invention section. Applicants respectfully point the Examiner to col. 4, lines 60 - 66 of Chou. In this section, Chou clearly states that his "invention overcomes problems posed by the prior art in that the catalyst aging is significantly reduced." Thus, Chou expressly teaches that the catalyst used therein is different from the prior art catalysts, including the patent discussed at col. 2, lines 10 - 14.

Further, it is well established that the teachings of a prior art reference must be taken as a whole. Taken as a whole, the Examiner would need to use the catalyst disclosed in United States patent Number 3,644,565, the disclosure cited by the Examiner at col. 2, lines 10 - 14, in the process of Chou. The Examiner cannot simply use that a Group VIII noble metal is used in the catalyst of the '565 patent and combine this teaching with Chou. Further, Chou expressly teaches away from using a catalyst such as that used in the '565 patent because Chou expressly states at col. 4, lines 60 - 66, that his "invention overcomes problems posed by the prior art in that the catalyst aging is significantly reduced."

If the Examiner is suggesting that the mere discussion of a noble metal in the Chou reference when discussing a prior art patent is sufficient to provide teaching to use a hydrogenation metal in the catalyst of Chou, Applicants again respectfully point the Examiner to col. 4, lines 60 - 66.

Applicants also respectfully submit that the Examiner has improperly combined the teachings of two references in this rejection.

The Examiner is requested to reconsider and withdraw this rejection.

REJECTION UNDER 35 U.S.C. 103(a)

Claim 9 has been rejected under 35 U.S.C. 103(a) as being unpatentable over by United States Patent Number 4,918,255, Chou, et al ("Chou").

EXAMINER'S POSITION

The Examiner takes the position that Claim 9 is taught by Chou through the incorporation by reference of Biale.

APPLICANTS' POSITION

Applicants respectfully disagree with the Examiner, and Applicants take the position that inventions embodied in Claim 9 are not obvious in light of the teachings of Chou. Claim 9 is a dependent claim, and by definition includes all of the limitations of the claims from which it depends. Claim 9 depends from Claim 1, and is therefore inventive for, among other reasons, the reasons discussed above.

In addition, the combination of Biale with Chou is improper. As noted in Chou, Biale is a prior art publication. While Applicants note that Chou incorporated Biale by reference, Chou also expressly teaches away from combining its invention with prior art inventions. Applicants again respectfully point the Examiner to col. 4, lines 60 - 66 of Chou. In this section, Chou clearly states that his "invention overcomes problems posed by the prior art in that the catalyst aging is significantly reduced." Thus, one having ordinary skill in the art would not be motivated to combine the teachings of a reference having "problems" with the invention described as overcoming those problems.

The Examiner is requested to reconsider and withdraw this rejection.

DOUBLE PATENTING

Claims 1 - 10 have been provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over Claims 1 - 42 of co-pending Application No. 12/021,096.

EXAMINER'S POSITION

The Examiner takes the position that this rejection was not overcome by Applicants' submission of Terminal Disclaimers because "it has not been considered by PTO paralegal clerks."

APPLICANTS' POSITION

Applicants will respectfully await further comments by the Examiner since they have already submitted the requisite Terminal Disclaimers to overcome this rejection.

The Examiner is again requested to reconsider and withdraw this rejection.

Based on the preceding remarks, and the prior filed Terminal Disclaimers, the Examiner is requested to reconsider and withdraw all rejections, and pass this Application to allowance. The Examiner is encouraged to contact Applicants' attorney should the Examiner wish to discuss this Application further.

Respectfully submitted,



JEREMY J. KLIEBERT

Reg. No. 48,227

Albemarle Corporation

451 Florida Street

Patent Law Department

Baton Rouge LA US 70801-1765

Telephone: 225-388-8191

Facsimile: 225-388-7239